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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,982	07/31/2001	Jiabin Zhao	2705-149	5793
20575	7590	10/03/2005	EXAMINER	
MARGER JOHNSON & MCCOLLOM, P.C. 210 SW MORRISON STREET, SUITE 400 PORTLAND, OR 97204			MAIS, MARK A	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,982

Applicant(s)

ZHAO, JIABIN

Examiner

Mark A. Mais

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) was submitted together with the application on August July 31, 2001. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner considered the information disclosure statement.

Claim Objections

2. Claim 1 is objected to because of the following informalities: it contains the improper claim language “capable of”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Radian (US Patent Publication 2002/0176403).

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5. With respect to claim 1, Radian discloses a packet voice gateway [**Fig. 4, Access Gateway 450, page 5, paragraph 0072**] comprising

at least one voice data port capable of connection to and communication with an access network device [**Fig. 4, Gateway 450 communicates voice from the PTSN Switch**];

at least one packet data port capable of connection to and communication with a packet-based network [**Fig. 4, Gateway 450 communicates through packet-based IP Network 110 (or ATM, page 5, paragraph 0072); the CO-IWF also provides internet (packet-based) network access, page 4, paragraph 0055**]; and

an access network interface [**interface of Access Gateway 450**] capable of

exchanging signaling, using an access network protocol, with an access network device connected to the voice data port [**Fig. 4, Gateway 450 is connected to the PTSN Switch; communicates with the PTSN switch using V5.2 or GR-303, page 1, paragraph 0010**],

exchanging signaling packets, using a packet-based gateway control protocol and the packet data port, with a call agent [**Fig. 4, Call Agent 460; page 3, paragraph, 0039**] reachable over a packet-based network [**Call Agent 460 supports end-to-end signaling between Gateway 450 and (the Call Agent of) other media Gateways using MGCP, page 3, paragraph 0039**], and

translating signaling between the access network protocol and the packet-based gateway control protocol [**The Call Agent 460 handles all (control) signal translation between PSTN (V5.2 or GR-303) and IP (and, therefore, MGCP), page 5, paragraph 0074 (e.g., IP to V5, page 4, paragraph 0066)**], such that the gateway emulates a group

of physical subscriber connections to the access network device [**provides voice for a plurality of calls, page 3, paragraph 0039**], and such that the gateway controls the access network device directly based on commands in signaling packets issued by the call agent [**the Call Agent 460 manages the PTSN switch's call control features "virtually" and can even access SS-7 protocol, page 5, paragraph 0095**].

6. With respect to claim 2, Radian discloses that the voice data port is capable of receiving and transmitting voice data and signaling using a plurality of time-division-multiplexed digital-sampled channels [**V.52 and GR-303 are TDM PCM, page 2, paragraph 0021**].

7. With respect to claim 3, Radian discloses that the voice data port is also capable of connection to a circuit-switched trunk [**connection to a circuit-based voice switch, e.g., Class 5 switch, page 2, paragraph 0021 and page 3, paragraph 0049; see also page 4, paragraph 0056**], the gateway [**Gateway 450**] further comprising a configuration manager capable of associating the access network interface with the voice data port when that port is connected to an access network device, and capable of associating the voice data port with a trunk interface when that port is connected to a circuit-switched trunk [**the Call Agent 460 manages the PTSN switch's call control features "virtually" and can even access SS-7 protocol, page 5, paragraph 0095**].

8. With respect to claim 4, Radian discloses that the trunk interface also exchanges signaling, using the same packet-based gateway control protocol as the access network interface, with the

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call agent [**The Call Agent 460 supports end-to-end signaling between Gateway 450 and (the Call Agent of) other media Gateways using MGCP, page 3, paragraph 0039**].

9. With respect to claims 5 and 6, Radian does not specifically disclose a backplane and with a plurality of line cards. However, the backplane, backplane bus, multiple voice data ports, demultiplexing functions, and processor cards are inherent to the operation of the system disclosed, taught, and suggested by Radian [*see also* Carew et. al. (USP, 6,879, 667), Figs. 1 and 3].

10. With respect to claims 7 and 14, Radian discloses a method for processing voice calls in a packet voice gateway [**Gateway 450 is interpreted as the combination of residential gateway, call agent, common database, accounting gateway, and trunking gateway in Table I**] comprising:

tracking call status for a call connected through the access network device [**waits for off-hook status, page 6, paragraph 0098; inherently, the Gateway must also wait (track) for a received call**];

receiving at least one access network signaling message from an access network device connected to a gateway voice data port [**Fig. 4, V5 signaling between Gateway 450 and PSTN Switch; see also V5.2 messages are sent between the V5.2 trunking gateway and the V5.2 Local Exchange, page 7, paragraphs 0115-0118**] ;

translating the access network signaling message into at least one packet-based gateway control protocol message based on the call status and received access network signaling; relaying

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the gateway control protocol message to a call agent [**The Call Agent 460 supports end-to-end signaling between Gateway 450 and (the Call Agent of) other media Gateways using MGCP, page 3, paragraph 0039**].

11. With respect to claims 8 and 15, Radian discloses

receiving a gateway control protocol response message from the call agent; translating the gateway control protocol response message into at least one second access network signaling message [**The Call Agent 460 supports end-to-end signaling between Gateway 450 and (the Call Agent of) other media Gateways using MGCP, page 3, paragraph 0039**], and

relaying the second access network signaling message to the access network through the gateway voice data port [**Fig. 4, V5 signaling between PSTN Switch and Gateway 450; see also V5.2 messages are sent between the V5.2 Local exchange and V5.2 trunking gateway, page 7, paragraphs 0130-0132**].

12. With respect to claim 9, Radian discloses that the gateway control protocol response message is a MGCP message [**MGCP, page 3, paragraph 0039**], and wherein the second access network signaling message is a V5/GR.303 message [**Fig. 4, V5 signaling between PSTN Switch and Gateway 450; see also V5.2 messages are sent between the V5.2 Local exchange and V5.2 trunking gateway, page 7, paragraphs 0130-0132**].

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13. With respect to claims 10 and 16, Radian discloses updating call status for the call as messages are received from the access network device and the call agent [**inherently done when polling for off-hook status or receiving notification of incoming call, see Claim 7 above**].

14. With respect to claim 11, Radian discloses receiving at least one access network signaling message comprises gathering dialed number digits from the access network device [**the Call Agent sends/receives the dialed digits, page 6, paragraph 1007, page 7, paragraphs 0112 and 0114**] and acknowledging receipt of those digits to the access network device [**page 7, paragraph 0112**], and wherein translating the access network signaling message comprises constructing a notification message, containing the dialed number digits, for forwarding to the call agent [**The Call Agent 460 supports end-to-end signaling between Gateway 450 and (the Call Agent of) other media Gateways using MGCP, page 3, paragraph 0039; inherently, the MGCP messages must contain the dialed number**].

15. With respect to claim 12, Radian discloses that the gateway control protocol message is a MGCP message [**MGCP, page 3, paragraph 0039**], and wherein the access network signaling message is a V5/GR.303 message [**Fig. 4, V5 signaling between PSTN Switch and Gateway 450; see also V5.2 messages are sent between the V5.2 Local exchange and V5.2 trunking gateway, page 7, paragraphs 0130-0132**].

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16. With respect to claim 13, Radian discloses a method for operating a packet voice gateway **[Fig. 4, Access Gateway 450, page 5, paragraph 0072]**, having multiple voice data ports and at least one packet data port, comprising:

configuring at least one first active voice data port in a first configuration type, for connection to an access network device **[Fig. 4, Gateway 450 communicates through packet-based IP Network 110 (or ATM, page 5, paragraph 0072); the CO-IWF also provides internet (packet-based) network access, page 4, paragraph 0055]**;

configuring at least one second active voice data port in a second configuration type, for connection to a circuit-switched trunk device **[connection to a circuit-based voice switch, e.g., Class 5 switch, page 2, paragraph 0021 and page 3, paragraph 0049; see also page 4, paragraph 0056]**;

exchanging signaling with the access network device using an access network protocol **[Fig. 4, Gateway 450 is connected to the PTSN Switch; communicates with the PTSN switch using V5.2 or GR-303, page 1, paragraph 0010]**;

exchanging signaling with the circuit-switched trunk device using a trunking protocol **[the Call Agent 460 manages the PTSN switch's call control features "virtually" and can even access SS-7 protocol, page 5, paragraph 0095]**;

placing call completion, for voice calls routed through the first or second voice data ports and also routed through the at least one packet data port, under the control of a call agent remote from the packet voice gateway but reachable through the at least one packet data port, the call agent communicating with the packet voice gateway using a packet-based gateway control

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protocol [The Call Agent 460 supports end-to-end signaling between Gateway 450 and (the Call Agent of) other media Gateways using MGCP, page 3, paragraph 0039] ; and for both the access network device and the circuit-switched trunk device, coordinating signaling with those devices, in their respective protocols, with call completion transactions between the gateway and the call agent via the packet-based gateway control protocol [The Call Agent 460 supports end-to-end signaling between Gateway 450 and (the Call Agent of) other media Gateways using MGCP, page 3, paragraph 0039; Call Agent 460 is transport layer independent (page 5, paragraph 0095) and can use SS-7 signaling for a circuit-switched network, page 4, paragraph 0056].

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Carew et al. (USP, 6,879, 667) System and method for interfacing telephony voice signals with a broadband access network. This reference discloses all the subject matter in claims 1-16.

(b) Thune et al. (US Patent Publication 2003/0007495), Telecommunication System comprising ATM core network. This reference discloses all the subject matter in claims 1-16

(c) Laxman et al. (US Patent Publication 2003/0091032), Call Process Architecture. This reference discloses all the subject matter in claims 1-16.


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18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is (571) 272-3138. The examiner can normally be reached on 6:00-4:30.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 20, 2005



WELLINGTON CHIN
SENIOR PATENT EXAMINER